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EXAMINER

SZEWCZYK, CYNTHIA

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/550,692
Filing Date: August 03, 2006
Appellant(s): OLLFISCH ET AL.

Robert T. Pous
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 31, 2010 appealing from the Office action mailed September 1, 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 16-30 have been rejected and are being appealed.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

Art Unit: 1791

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

DE 101 05 200 A1

SCHIEL et al.

08-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

A. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

B. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

C. Claims 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHIEL et al. (DE 101 05 200 A1).

Art Unit: 1791

SCHIEL teaches a method and device for bending glass panes wherein the method comprises the steps of:

- i. laying glass sheets on a concave bending frame (3 in figures) to be prebent by gravity (para. 4, lines 2-3);
- ii. transferring the prebent glass sheets to a transfer former (5 in figures) with a concave forming surface, the outside dimensions of the transfer former (5) being smaller than those of an area enclosed by the concave bending frame (3), by moving the transfer former in a generally vertical relative movement through the concave bending frame (see figure 2);
- iii. positioning the transfer former (5 in figures) to vertically overlies a final bending former (7 in figures) in a form of a frame with a concave forming surface, the outside dimensions of the transfer former (5) being smaller than those of the area enclosed by the concave final bending former (see figure 5);
- iv. moving the transfer former (5) in a generally vertical relative movement through the final bending former (7) in a form of a frame, the transferred glass sheets being laid on the final bending former (see figure 5);
- v. bending the transferred glass sheets into a final shape while being supported on the final bending former, wherein it would have been obvious to one of ordinary skill in the art that the softened hot glass sheet (para. 43, line 7) placed on the final bending frame would continue to sag (i.e. bend) until cooled and solidified; and

Art Unit: 1791

- vi. transferring at an end of the bending step (para. 21, lines 2-3), the bent glass sheets in their final shape from the final bending former to a transport system wherein SCHIEL discloses that the forming frames may be used as transport means (para. 43, lines 4-5), and cooling the bent glass sheets (para. 43, lines 7-10).

Regarding claim 17, SCHIEL discloses that a pressure difference is applied across the transfer former (para. 41, lines 2-4).

Regarding claim 18, it would have been obvious to one of ordinary skill in the art that the softened hot glass sheet (para. 43, line 7) placed on the final bending frame would continue to sag until cooled.

Regarding claim 19, SCHIEL discloses that there exists an upper former complementary in shape (4 in figures) that is used to press bend the glass (para. 39, lines 4-5).

Regarding claim 20, see the discussion of claim 17 above.

Regarding claim 21, it would have been obvious that the method and apparatus would have been capable of bending single panes of glass since molds are commonly used to shape single panes of glass.

Regarding claim 22, SCHIEL is silent as to the cooling method, but any well known method of cooling could be applied. One such method of cooling that is well known in the art is quenching, in which the glass is cooled rapidly and thus toughened. It would have been obvious to quench the glass of SCHIEL because SCHIEL discloses

Art Unit: 1791

that the glass is typically used for windshields (para 1, lines 4-5) which require toughened glass in order to protect the driver during accidents.

Regarding claim 23, SCHIEL discloses that the method and apparatus is used for bending pairs of glass.

Regarding claim 24, SCHIEL discloses that the shaped glass is cooled when the shaping is complete (para. 43, lines 9-10) as in instant claim 24.

Regarding claim 25, see the discussion of claim 16. SCHIEL discloses that the molds are able to move height wise by a drive (para. 34, line 3). SCHIEL discloses that the glass is brought to the softening temperature in a furnace (para. 32, line 3).

Regarding claim 26, SCHIEL discloses that the transfer former produces a depression (para. 38, lines 7-9).

Regarding claim 27, SCHIEL discloses that the transfer former is a solid concave surface (para. 15, line 3).

Regarding claim 28, see the discussion of 19 above.

Regarding claim 29, SCHIEL discloses that the upper former helps produce a pressure differential by keeping the top of the glass sheets at atmospheric pressure while a depression is applied to the transfer former (para. 40, lines 5-7).

Regarding claim 30, SCHIEL discloses that the upper former is a convex surface (para. 33, line 1). Figures 1-6 of SCHIEL show that the upper former appears to have a solid surface.

(10) Response to Argument

Applicant argues on page 5 that the transfer former does not pass through the final bending former; however, the applicant is not responding to the interpretation of the prior art presented in the final rejection where the concave bending frame is interpreted as reference number 3 in the figures, the transfer former is interpreted as reference number 5 in the figures, and the final bending former is interpreted as the reference number 7 in the figures. As clearly shown in figure 2, the transfer former 5 is enclosed by the concave bending frame 3.

Applicant argues on page 5 that BALDUIN does not contain the step of positioning the transfer former to vertically overlies the final bending frame and vertically moving the transfer former, however this step is clearly shown in figure 5.

Applicants argue on pages 6-7 that the glass sheet would not continue to bend on final bending former 7, however, the examiner maintains that a hot glass sheet may continue to sag on a support if it is at a bending temperature and especially if the support were in the form of frame, which the process of BALDUIN describes (trans. para. 43), regardless of the intended purpose of the support.

Applicant argues on page 7 that BALDUIN is used to bend pairs of panes of glass rather than a single pane of glass, however, it would have been obvious that the method and apparatus would have been capable of bending single panes of glass since molds are commonly used to shape single panes of glass. Additionally, one of ordinary skill in the art would have recognized replacing the pair of glass with a single glass as a simple substitution with known expected results.

Art Unit: 1791

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Cynthia Szewczyk/

Examiner, Art Unit 1791

Conferees:

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